

# Niranjan Meher, Ph.D.

## DST-INSPIRE Faculty Fellow

Department of Biotechnology, National Institute of Pharmaceutical Education and Research, Raebareli, Lucknow-226002, U.P. India

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### EDUCATION

2014 - 2019	<b>Ph.D.</b> (Chemistry) Department of Chemistry, Indian Institute of Technology Guwahati, Guwahati, Assam, India
2012 - 2014	<b>M.Sc.</b> (Organic Chemistry) Department of Chemistry, Sambalpur University, Sambalpur, Odisha, India
2009 - 2012	<b>B.Sc.</b> in Chemistry (Hons.) Sambalpur University, Sambalpur, Odisha, India

### PROFESSIONAL EXPERIENCE

July 2023 – Present	<b>DST-INSPIRE Faculty Fellow</b> Department of Biotechnology, National Institute of Pharmaceutical Education and Research, Lucknow, U.P. India
Dec 2019 – June 2023	<b>Postdoctoral Fellow</b> Department of Radiology & Biomedical Imaging, University of California San Francisco, San Francisco, CA, USA

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### RESEARCH INTERESTS

Prostate Cancer, Antibody-Drug Conjugates, Nanomedicine, DNA Nanostructure, Phototheranostics, Skin Cancer.

### RESEARCH EXPERIENCES

Organic Synthesis of Small Molecules & Polymers, Organic Nanoparticle Formulation, Fluorometric & Colorimetric Sensing Technology, Design and Development of Prostate Cancer Targeting Theranostic Drugs Including Small Molecules, Polymers, Nanoparticles, and Antibodies, *In Vitro* and *In Vivo* Theranostics Evaluation.

### TEACHING EXPERIENCES

1. BT-550, Biochemistry (2C)
2. BT-630, Immunology and Immunotechnology (2C)
3. GE-510, Biostatistics (2C, Co-instructor)

4. BT-650, Biologics (2C, Co-instructor)
5. BT-720, Therapeutic and Diagnostic Approaches in Neglected Tropical Diseases (2C, Co-instructor)
6. GE-830, Cell-Based Therapies (2C, Co-instructor)

### RESEARCH GROUP

#### Ph.D. Students (Ongoing)

1. Anitya Shukla (2022); Co-supervisor
2. Boga Vijay Kumar (2023); Co-supervisor
3. Satyam Dewangan (2024)
4. Gul Hasan (2024)
5. Aakash Shah (2025); Co-supervisor
6. Soundarya Kulkarni (2025); Co-supervisor

#### Master Students (Ongoing)

1. Komal Rajendra Ghadge (2024-26)
2. Ajay Suryakant Kalhare (2024-26)
3. Abhishek Kamalakar Sutar (2024-26)
4. Sanjana Vijay Nishad (2024-26)
5. Sapna (2024-26)

#### Master Students (Degree Awarded)

1. Krishna Solanki (2022-24)
2. Nazeer Ahmad (2022-24), Working at Ci Scientists
3. Prajakta Garade (2023-25), Working at APCER Life Science
4. Riya Sachan (2023-25)
5. Sangramjit Basak (2023-25), Pursuing Ph.D at Bose Institute, Kolkata
6. Subhadarshini Sathpati (2023-25)

### RESEARCH PUBLICATIONS

#### IITG Affiliated

1. Chowdhury, S. R.; Agarwal, M.; **Meher, N.**; Muthuraj, B.; Iyer, P. K. Modulation of Amyloid Aggregates into Nontoxic Co-aggregates by Hydroxyquinoline Appended Polyfluorene. *ACS Appl. Mater. Interfaces*, **2016**, *8*, 13309–13319. (IF: 10.383) DOI: 10.1021/acsami.6b03668
2. **Meher, N.**; Chowdhury, S. R.; Iyer, P. K. Aggregation Induced Emission Enhancement and Growth of Naphthalimide Nanoribbons via J-aggregation: Insight into Disaggregation Induced Unfolding and Detection of Ferritin at the Nanomolar Level. *J. Mater. Chem., B* **2016**, *4*, 6023–6031. (IF: 7.571) DOI: 10.1039/C6TB01746K
3. **Meher, N.**; Iyer, P. K. Pendant Chain Engineering to Fine-Tune the Nanomorphologies and Solid-State Luminescence of Naphthalimide AIEEgens: Application to Trinitrophenol Detection in Water. *Nanoscale* **2017**, *9*, 7674–7685. (IF: 8.307) DOI: 10.1039/C7NR02174G

4. **Meher, N.**; Kalita, A.; Tanwar, A. S.; Adil, L. R.; Malik, A. H.; Hussain, S.; Iyer, P. K. Conjugated Smart Materials for Sensing Application on Multiple Platforms. *ISRAPS Bulletin*, **2018**, *30*, 14-31. (IF: NA)
5. Gopikrishna, P.;<sup>†</sup> **Meher, N.**;<sup>†</sup> Iyer, P. K. Functional 1,8-Naphthalimide AIE/AIEEgens: Recent Advances and Prospects. *ACS Appl. Mater. Interfaces*, **2018**, *10*, 12081–12111. (<sup>†</sup>Equal Contribution) (IF: 10.383) DOI: 10.1021/acsami.7b14473
6. **Meher, N.**; Panda, S.; Kumar S.; Iyer, P. K. Aldehyde Group Driven Aggregation-Induced Enhanced Emission in Naphthalimides and its Application for Ultradetection of Hydrazine on Multiple Platforms. *Chem. Sci.*, **2018**, *9*, 3978–3985. (This article is part of the themed collections: [Celebrating the Chemical Science in India - Leaders in the Field Symposium](#), [Most popular 2018-2019 materials chemistry articles](#), and [2018 International Open Access Week Collection](#)) (IF: 9.969) DOI: 10.1039/C8SC00643A
7. Chowdhury, S. R.; Balaji, S. N.; Mondal, S.; **Meher, N.**; Trivedi, V.; Iyer, P. K.\* Modulating Early Stage Oligomeric Amyloid Aggregates by Dipeptide Linked Perylenebisimides: Structure Activity Relationship, Inhibition of fibril formation in Human CSF and A $\beta$ 1-40. *ACS Appl. Bio Mater.*, **2018**, *1*, 403-413. (IF: 4.90) DOI: 10.1021/acsabm.8b00137
8. **Meher, N.**; Iyer, P. K. Spontaneously Self-assembled Naphthalimide Nanosheets: Aggregation Induced Emission and Unveiling a-PET for Sensitive Detection of Organic Volatile Contaminants in Water. *Angew. Chem. Int. Ed.*, **2018**, *57*, 8488–8492. (IF: 16.823) DOI: 10.1002/ange.201802842
9. Dutta, P.; **Meher, N.**; Malik, A. H.; Choudhury, B.; Iyer, P. K.\* Polyfluorene-Based Bioconjugates for Selective Detection of Ferritin in Normal and Cancer Human Blood Serums. *ACS Appl. Polym. Mater.*, **2019**, *1*, 18-26. (IF: 4.855) DOI: 10.1021/acsapm.8b00016
10. Maharana, M.; Baruah, N.; Nayak, S.\* **Meher, N.**; Iyer, P. K. Condition Assessment of Aged Ester based Nanofluid Through Physicochemical and Spectroscopic Measurement. *IEEE Trans. Instrum. Meas.*, **2019**, *68*(12), 4853 – 4863. (IF: 5.332) DOI: 10.1109/TIM.2019.2900883
11. **Meher, N.**; Iyer, P. K.\* Functional Group Engineering in Naphthalimides: A Conceptual Insight to Fine-Tune the Supramolecular Self-Assembly and Condensed State Luminescence. *Nanoscale*, **2019**, *11*, 13233-13242. (IF: 8.307) DOI: 10.1039/C9NR04593G
12. Narasimhan. R. A.; **Meher, N.**; Barman, D.; Iyer P. K.\* Self-Assembled Naphthalimide Nanoparticles for High Performance Non-Volatile Resistive Random Access (ReRAM) Device: A New Approach Towards an All-Organic Two Terminal Resistive Memory Device. *ACS Appl. Electron. Mater.*, **2019**, *1*, 2437-2444. (IF: 4.494) DOI: 10.1021/acsaelm.9b00582
13. Khatun, N.; Tanwar, A. S.; **Meher, N.**; Iyer, P. K.\* An Unprecedented Blueshifted Naphthalimide AIEEgen for Ultrasensitive Detection of 4-Nitroaniline in Water via “Receptor-Free” IFE Mechanism. *Chem. Asian J.*, **2019**, *14*, 4725–4731. (IF: 4.839) DOI: 10.1002/asia.201901065
14. Tanwar, A. S.; **Meher, N.**; Adil, L.R.; Iyer, P. K.\* Stepwise Elucidation of Fluorescence Based Sensing Mechanisms Considering Picric Acid as a Model Analyte. *Analyst*, **2020**, *145*, 4753-4767. (IF: 5.227) DOI: 10.1039/D0AN00732C
15. **Meher, N.**; Bitkar, A.; Barman, D.; Ghosh, S. S.; Iyer, P. K.\* A conformational tweak for enhanced cellular internalization, photobleaching resistance and prolonged imaging efficacy. *Chem. Commun.*, **2020**, *56*, 14861-14864. (IF: 6.065) DOI: 10.1039/D0CC05557C

16. Khatun, N.; Dey, A.; **Meher, N.**; Iyer, P. K.\* Long alkyl chain induced OFET characteristic with low threshold voltage in an n-type perylene monoimide semiconductor. *ACS Appl. Electron. Mater.*, **2021**, 3 (8), 3575-3587. (IF: 4.494) DOI: 10.1021/acsaelm.1c00483
17. **Meher, N.**; Barman, D.; Paroi, R.; Iyer, P. K.\* Recent development of the fluorescence-based detection of volatile organic compounds: a mechanistic overview. *J. Mater. Chem. C*, **2022**, 10, 10224-10254. (IF: 8.067) DOI: 10.1039/D2TC00265E
18. Paroi, R.; **Meher, N.**; Iyer, P. K.\* Discriminative light-up detection of volatile chlorinated solvents and dual-phase encrypted security ink. *Mater. Adv.*, **2022**, 3, 5980-5986. (IF: 5.36) DOI: 10.1039/D2MA00319H

### UCSF Affiliated

19. **Meher, N.**; Seo, K.; Wang, S.; Bidkar, A. P.; Fogarty, M.; Dhrona, S.; Huang, X.; Tang, R.; Blaha, C.; Evans, M. J.; Raleigh, D. R.; Jun, Y.-W.; VanBrocklin, H. F.; Desai, T. A.; Wilson, D. M.; Ozawa, T.; Flavell, R. R.\* Synthesis and Preliminary Biological Assessment of Carborane-Loaded Theranostic Nanoparticles to Target Prostate-Specific Membrane Antigen. *ACS Appl. Mater. Interfaces*, **2021**, 13(46), 54739–54752. (IF: 10.383) DOI: 10.1021/acсами.1c16383
20. **Meher, N.**; Ashley, G. W.; Bidkar, A. P.; Dhrona, S.; Fong, C.; Fontaine, s. D.; Vera, D. R. B.; Wilson, D. M.; Seo, Y.; Santi, D. V.; VanBrocklin, H. F.; Flavell, R. R.\* Prostate-Specific Membrane Antigen Targeted Deep-Tumor Penetration of Polymer Nanocarriers. *ACS Appl. Mater. Interfaces*, **2022**, 14, 45, 50569–50582. (IF: 10.383) DOI: 10.1021/acсами.2c15095
21. Bidkar, A. P.; Wang, S.; Bobba, K. N.; Chan, E.; Bidlingmaier, S.; Egusa, E.; Peter, R.; Ali, U.; **Meher, N.**; Anju, A.; Dhrona, S.; Dasari, C.; Beckford-Vera, D.; Su, Y.; Tang, R.; He, J.; Wilson, D. M.; Aggarwal, R.; VanBrocklin, H. F.; Seo, Y.; Chou, J.; Liu, B.; Flavell, R. R.\* Treatment of prostate cancer with CD46 targeted <sup>225</sup>Ac alpha particle radioimmunotherapy. *Clin. Cancer Res.*, **2023**, 29, 10, 1916–1928. (IF: 13.801) DOI: 10.1158/1078-0432.CCR-22-3291
22. **Meher, N.**; VanBrocklin, H. F.; Wilson, D. M.; Flavell, R. R.\* PSMA-Targeted Nanotheranostics for Imaging and Radiotherapy of Prostate Cancer. *Pharmaceuticals*, **2023**, 16, 315. (IF: 5.215) DOI: 10.3390/ph16020315
23. Bobba, K. N.; Bidkar, A. P.; **Meher, N.**; Fong, C.; Anju, A.; Dhrona, S.; Sorlin, A.; Bidlingmaier, S.; Shuere, B.; He, J.; Wilson, D. M.; Liu, B.; Seo, Y.; VanBrocklin, H. F.; Flavell, R. R.\* Cerium-134/Lanthanum-134: Evaluation of in situ generated lanthanum-134 as a PET imaging surrogate for Actinium-225 alpha radiotherapeutics. *J. Nucl. Med.*, **2023**, 64, 7, 265355. (IF: 10.057) DOI: 10.2967/jnumed.122.265355
24. Wadhwa A.; Wang S.; Patiño-Escobar B.; Bidkar A. P.; Bobba K. N.; Chan E.; **Meher N.**; Bidlingmaier S.; Su Y.; Dhrona S.; Geng H.; Sarin V.; VanBrocklin H. F.; Wilson D. M.; He J.; Zhang L.; Steri V.; Wong S. W.; Martin T. G.; Seo Y.; Liu B.; Wiita A. P.; Flavell R. R.\* CD46-targeted theranostics for Positron Emission Tomography and <sup>225</sup>Ac-Radiopharmaceutical Therapy of Multiple Myeloma. *Clin. Cancer Res.*, **2024**, 30 (5), 1009–1021. (IF: 13.801) DOI: 10.1158/1078-0432.CCR-23-2130
25. Bobba, K. N.; Bidkar, A. P.; Anju, A.; **Meher, N.**; Dhrona, S.; Sorlin, A.; Bidlingmaier, S.; Zhang, L.; Wilson, D. M.; Chan, E.; Greenland, N. Y.; Aggarwal, R.; VanBrocklin, H. F.; Chaou, J.; Seo, Y.; Liu, B.; Flavell, R. R.\* Development of CD46 targeted alpha theranostics in prostate cancer using <sup>134</sup>Ce/<sup>225</sup>Ac-Macropa-PEG<sub>4</sub>-YS5. *Theranostics*, **2024**, 14, 4, 1344-1360. (IF: 12.40) DOI: 10.7150/thno.92742
26. Jung, J., Schneider, E.L., Zhang, W., Song, H., Zhang, M., Chou, W., **Meher, N.**, VanBrocklin, H. F., Barcellos-Hoff, M. H., Ozawa, T., Gilbert, M. R., & Santi, D. V.\* PLX038A, a long-acting SN-38, penetrates

the blood-tumor-brain-barrier, accumulates and releases SN-38 in brain tumors to increase survival of tumor bearing mice. *Sci Rep.*, **2024**, *14*, 14175. (IF: 4.60) DOI: [10.1038/s41598-024-64186-2](https://doi.org/10.1038/s41598-024-64186-2)

27. Jana, D., Han, Z., Huang, X., Wadhwa, A., Raveendran, A., Ebeid, K., **Meher, N.**, Flavell, R. R., & Desai T.\* Enhanced Prostate-specific Membrane Antigen Targeting by Precision Control of DNA Scaffolded Nanoparticle Ligand Presentation. *ACS Nano*, **2024**, *18*, 26, 16674–16683. (IF: 15.8) DOI: [10.1021/acsnano.4c01640](https://doi.org/10.1021/acsnano.4c01640)
28. Peter, R.; Bidkar, A.; Bobba, K. N.; Zerefa, L.; Dasari, C.; **Meher, N.**; Wadhwa, A.; Oskowitz, A.; Liu, B.; Miller, B. W.; Kai, V.; Flavell, R.; Seo, Y.\* 3D small-scale dosimetry and tumor control of 225Ac radiopharmaceuticals for prostate cancer. *Sci Rep.*, **2024**, *14*, 19938. (IF: 4.60) DOI: [10.1038/s41598-024-70417-3](https://doi.org/10.1038/s41598-024-70417-3)

### **NIPER-R Affiliated**

29. **Meher, N.**, Ashley, G. W., Bobba, K. N., Wadhwa, A., Bidkar, A. P., Dasari, C., Mu, C., Sankaranarayanan, R. A., Serrano, J. A. C., Raveendran, A., Bulkley, D. P., Aggarwal, R., Greenland, N. Y., Oskowitz, A., Wilson, D. M., Seo, Y., Santi, D. V., VanBrocklin, H. F., & Flavell, R. R.\* Prostate-Specific Membrane Antigen Targeted StarPEG Nanocarrier for Imaging and Therapy of Prostate Cancer. *Adv. Healthcare Mater.*, **2024**, *13*, 2304618. (IF: 10.0) DOI: [10.1002/adhm.202304618](https://doi.org/10.1002/adhm.202304618)
30. Solanki, K.; Ahamed, N.; Srivastava, N.; **Meher, N.\*** Prostate-Specific Membrane Antigen Targeted NIR Phototheranostics for Prostate Cancer. *ACS Appl. Bio Mater.*, **2024**, *7*, (9), 5861–5884 (IF: 4.60) DOI: [10.1021/acsabm.4c00819](https://doi.org/10.1021/acsabm.4c00819)
31. **Meher, N.**; Bidkar, A. P.; Wadhwa, A.; Bobba, K. N.; Dhrona, S.; Dasari, C.; Mu, C.; Fong, C. O. Y.; Cámara, J. A.; Ali, U.; Basak, M.; Bulkley, D.; Steri, V.; Fontaine, S. D.; Zhu, J.; Oskowitz, A.; Aggarwal, R. R.; Sriram, R.; Chou, J.; Wilson, D. M.; Seo, Y.; Santi, D. V.; Ashley, G. W.; VanBrocklin, H. F.; Flavell, R. R.\* PET Imaging Using <sup>89</sup>Zr Labeled StarPEG Nanocarriers Reveals Heterogeneous Enhanced Permeability and Retention (EPR) in Prostate Cancer. *Mol. Cancer Ther.* **2025**, *24*, 141-151. (IF: 5.40) DOI: [10.1158/1535-7163.MCT-24-0024](https://doi.org/10.1158/1535-7163.MCT-24-0024)
32. Kumar, B. V.; Sachan, R.; Garad, P.; Srivastava, N.; Saraf, S. A.; **Meher, N.\*** Dual Targeting of Prostate-Specific Membrane Antigen and Fibroblast Activation Protein: Bridging Prostate Cancer Theranostics with Precision. *ACS Appl. Bio Mater.*, **2025**, *8* (2), 962–979. (IF: 4.70) DOI: [10.1021/acsabm.4c01914](https://doi.org/10.1021/acsabm.4c01914)
33. Bidkar, A. P.; Peter, R.; Wadhwa, A.; Bobba, K. N.; Bidlingmaier, S.; **Meher, N.**; Chou, J.; Greenland, N. Y., Dasari, C.; Shubhankar, N.; Raveendran, A.; Basak, M.; Cámara, J. A.; Steri, V.; Oskowitz, A.; Jiang, H.; Wilson, D. M.; Aggarwal, R. R.; Sriram, R.; VanBrocklin, H. F.; Seo, Y.; Liu, B.; Flavell, R. R.\* Effective Treatment of Disseminated Prostate Cancer Using CD46-Targeted 225Ac Therapy. *Clin. Cancer Res.*, **2025**, *31* (14), 2963-2977. (IF: 10.40) DOI: [10.1158/1078-0432.CCR-24-2850](https://doi.org/10.1158/1078-0432.CCR-24-2850)
34. **Meher, N.\***; Khatun, N.; Parui, R.; Iyer, P. K.\* Non-Conjugated Alkyl Chains Engineering to Tune Condensed State Photophysical and Supramolecular Assembly Properties. *Nanoscale*, **2025**, *17*, 6685-6694. (IF: 5.8) DOI: [10.1039/D5NR00163C](https://doi.org/10.1039/D5NR00163C)
35. Parui, R.; Roy, H.; **Meher, N.**; Ghoshb, S. S.; Iyer, P. K.\* Mechanistic Investigation on Cellular Internalization of BoronNitrogen Luminogens: Triggering Time-Dependent Supramolecular Linear Growth and Structure-Induced Conformational Modulation. *Chem. Sci.*, **2025**, *16*, 6023–6034. (IF: 7.60) DOI: [doi.org/10.1039/D4SC08296F](https://doi.org/10.1039/D4SC08296F)

36. Basak, S.; Satapathy, S.; Shukla, A.; Srivastava, Ni.\* **Meher, N.\*** Fibroblast Activation Protein as a Molecular Handle in Cancer Phototheranostics: Recent Advances. *Molecular Pharmaceutics*, **2025**, *22*, 3621-3636. (IF: 4.5) DOI: [10.1021/acs.molpharmaceut.5c00482](https://doi.org/10.1021/acs.molpharmaceut.5c00482).
37. **Meher, N.\*** Voices in Molecular Pharmaceutics: Meet Dr. Niranjana Meher who Designs Light-Activated Intelligent Drug Delivery Systems. *Molecular Pharmaceutics*, **2025**, *22*, 4335–4336. (IF: 4.5) DOI: [10.1021/acs.molpharmaceut.5c00965](https://doi.org/10.1021/acs.molpharmaceut.5c00965)
38. Kumari, A.; **Meher, N.**; Dey, A.; Awasthi, S.; Saraf, S. A.\*; Srivastava, N.\* Unmasking the role of tumor microenvironment in the advanced stage of cancer treatment to mitigate risks during chemotherapy. *Biochemical Pharmacology*, **2026**, *246*, 117754. (IF: 5.6) DOI: [10.1016/j.bcp.2026.117754](https://doi.org/10.1016/j.bcp.2026.117754)

### **Best 5 Articles**

1. **Meher, N.**; Iyer, P. K. Spontaneously Self-assembled Naphthalimide Nanosheets: Aggregation Induced Emission and Unveiling a-PET for Sensitive Detection of Organic Volatile Contaminants in Water. *Angew. Chem. Int. Ed.*, **2018**, *57*, 8488 –8492. (IF: 16.823)
2. **Meher, N.**; Ashley, G. W.; Bidkar, A. P.; Dhrona, S.; Fong, C.; Fontaine, s. D.; Vera, D. R. B.; Wilson, D. M.; Seo, Y.; Santi, D. V.; VanBrocklin, H. F.; Flavell, R. R.\* Prostate-Specific Membrane Antigen Targeted Deep-Tumor Penetration of Polymer Nanocarriers. *ACS Appl. Mater. Interfaces*, **2022**, *14*, 45, 50569–50582. (IF: 10.383)
3. Solanki, K.; Ahamed, N.; Srivastava, N.; **Meher, N.\*** Prostate-Specific Membrane Antigen Targeted NIR Phototheranostics for Prostate Cancer. *ACS Appl. Bio Mater.*, **2024**, *7*, (9), 5861–5884 (IF: 4.60) DOI: [10.1021/acsabm.4c00819](https://doi.org/10.1021/acsabm.4c00819)
4. **Meher, N.**, Ashley, G. W., Bobba, K. N., Wadhwa, A., Bidkar, A. P., Dasari, C., Mu, C., Sankaranarayanan, R. A., Serrano, J. A. C., Raveendran, A., Bulkley, D. P., Aggarwal, R., Greenland, N. Y., Oskowitz, A., Wilson, D. M., Seo, Y., Santi, D. V., VanBrocklin, H. F., & Flavell, R. R.\* Prostate-Specific Membrane Antigen Targeted StarPEG Nanocarrier for Imaging and Therapy of Prostate Cancer. *Adv. Healthcare Mater.*, **2024**, *13*, 2304618. (IF: 10.0)
5. **Meher, N.\***; Khatun, N.; Parui, R.; Iyer, P. K.\* Non-Conjugated Alkyl Chains Engineering to Tune Condensed State Photophysical and Supramolecular Assembly Properties. *Nanoscale*, **2025**, *17*, 6685-6694. (IF: 5.8) DOI: [10.1039/D5NR00163C](https://doi.org/10.1039/D5NR00163C)

### **BOOK CHAPTERS**

#### **IITG Affiliated**

1. **Meher, N.**; Iyer, P. K. Design and Development of Naphthalimide Based Luminogens. In Handbook of Aggregation-Induced Emission. 1st Edition, *John Wiley & Sons*, 15 April 2022. DOI: [10.1002/9781119643098.ch40](https://doi.org/10.1002/9781119643098.ch40)
2. **Meher, N.**; Iyer, P. K. Smart Luminogens for the Detection of Organic Volatile Contaminants. In Handbook of Aggregation-Induced Emission. 1st Edition, *John Wiley & Sons*, 15 April 2022. DOI: [10.1002/9781119643098.ch58](https://doi.org/10.1002/9781119643098.ch58)

#### **NIPER Affiliated**

3. Kumar, B. V.; Sukla, A.; Ahamed, N.; Solanki, K.; Srivastava, N.;\* Saraf, S. A.;\* **Meher, N\*** Antibody Drug Conjugates Integrated with Lipid Nanocarrier for Cancer Theranostics. Lipid-Drug Conjugates, *Academic Press*, 28 March 2025, 333-363, DOI: 10.1016/B978-0-443-33382-8.00012-1

## PATENTS

### Granted

1. **Meher, N.**; Iyer, P. K. (18/07/2018), Spontaneously Self-Assembled Nanosheets for the Detection of Organic Volatile Contaminants in Water, Ref No. 201831026896, App. Number: TEMP/E-1/29385/2018-KOL. **IP INDIA Patent No. 434268**, Date of Grant: 09/06/2023
2. **Meher, N.**; Iyer, P. K. (08/05/2018), Hydrazine Detector Device Comprising of Fluorescent Organic Molecular Probe, Ref. No 201831017337, App. Number: TEMP/E-1/18338/2018-KOL. **IP INDIA Patent No. 525172**, Date of Grant: 14/03/2024

### Filed

3. **Meher, N.**; Iyer, P. K. (25/05/2019), Functional Group Engineering in Naphthalimides to Fine-Tune the Supramolecular Self-Assembly and Condensed State Luminescence. Ref No. 201931020811, App. Number: TEMP/E-1/21902/2019-KOL.
4. Flavell, R. R.; VanBrocklin, H. F.; Ashley, G. W.; Santi, D. V.; **Meher, N.** (30/08/2022) Prostate-Specific Membrane Antigen Targeted Deep-Tumor Penetration of Polymer Nanodrugs and Methods of Use Thereof. UC Case No. SF2022-152, MLB Ref.: 061818-5528-PR.

## SCHOLAR INFORMATION

Google Scholar Link: <https://scholar.google.co.in/citations?hl=en&user=w0lupa8AAAAJ>

Researchgate Link: [https://www.researchgate.net/profile/Niranjan\\_Meher](https://www.researchgate.net/profile/Niranjan_Meher)

Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57189592376>

ORCID: 0000-0003-3558-3712

Scopus ID: 57189592376

## GRANTS

### Completed

1. Development of Carborane-Polymer Nanoparticle Based Prostate-Specific Membrane Antigen Theranostic Agents for the Imaging and Treatment of Prostate Cancer Using Positron Emission Tomography and Boron Neutron Capture Therapy (Project ID: 20-02). *Department of Radiology & Biomedical Imaging Pilot Grant, UCSF, 1/6/2020-31/5/2021*, Grant Amount: 5,000.00 USD (**PI**)

### Ongoing

2. PSMA-Targeted Molecular Probes for Combined Photodynamic and Photothermal Therapy of Prostate Cancer (Project ID: IFA22-CH 385). *INSPIRE-Faculty Fellowship, DST. 18/07/2023-17/07/2028*, Grant Amount: 1,10,00,000.00 INR (**PI**)
3. Unravelling structural and mechanistic aspects of H19 Long non-coding RNA (lncRNA) in the development and progression of breast cancer (Project ID: CST/D/Biotech-1293). *Council of Science & Technology, U.P. 29/11/2025-28/11/2027*, Grant Amount: 11,50,000.00 INR (**Co-PI**)

4. PSMA-Targeted Antibody-Drug Conjugates for Synergistic Photodynamic and Photothermal Therapy of Castration-Resistant Prostate Cancer (Project ID: ANRF/ARG/2025/000585/LS), *Advanced Research Grant, ANRF*. 17/03/2026-16/03/2029, Grant Amount: 39,12,480.00 INR (PI)
5. Plant-Derived Extracellular Vesicles for PSMA-Targeted Synergistic Photodynamic and Photothermal Therapy of Castration-Resistant Prostate Cancer, (Project ID: ANRF/ARG/2025/000590/LS), *Advanced Research Grant, ANRF*. 17/03/2026-16/03/2029, Grant Amount: 38,57,280.00 INR (Co-PI)
6. Prostate-Specific Membrane Antigen Targeted Lipid Nanocarriers for Synergistic Photodynamic and Photothermal Therapy of Castration-Resistant Prostate Cancer, Alliance for Medicinal Research, Innovation, Translation & Value Acceleration (AMRITVA) Grant, Boehringer Ingelheim-SIIC IIT Kanpur, 01/04/2026-31/12/2026, Grant Amount: 6,00,000.00 INR (Co-PI)

### CONFERENCES, WORKSHOPS & GUEST LECTURES

1. Attended the **National Conference on Recent Advances in Cancer Biology and Therapeutics** held on December 5, 2014, organized by the Department of Biotechnology, Indian Institute of Technology Guwahati.
2. Attended the **4<sup>th</sup> International Conference on Advance Nanomaterials and Nanotechnology** held during December 08-11, 2015, organized by the Centre for Nanotechnology, Indian Institute of Technology Guwahati.
3. Attended the **2<sup>nd</sup> National Workshop on MEMS/NEMS and Theranostic Devices** held during March 21-22, 2016, organized by the Centre of Excellence in Nanoelectronics and Theranostic Devices under the aegis of Centre for Nanotechnology, Indian Institute of Technology Guwahati.
4. Presented **poster** at the **National Conference on Frontiers in Chemical Sciences (FICS)-2016**, during December 08-10, 2016, organized by the Department of Chemistry, Indian Institute of Technology Guwahati.
5. Presented **poster** at the **International Conference on Functional Materials (ICFM)-2016**, December 12-14, 2016, organized by the Material Science Centre, Indian Institute of Technology Kharagpur.
6. Attended the full agenda of **ACS on Campus** at IIT Guwahati on January 16, 2017.
7. Presented **poster** at the **20<sup>th</sup> CRSI National Symposiums in Chemistry (CRSI-NSC)-2017**, February 02-05, 2017, organized by Gauhati University, Guwahati.
8. Presented **poster** in the **Newton Bhabha Researcher Links Workshop** held during December 14-16, 2017, organized by IISER Kolkata.
9. Presented **poster** at the **5<sup>th</sup> International Conference on Advance Nanomaterials and Nanotechnology** held during December 18-21, 2017, organized by the Centre for Nanotechnology, Indian Institute of Technology Guwahati.
10. Presented **poster** in the **Young Scientists' Colloquium-2018, Materials Research Society of India (MRSI), Kolkata Chapter** held on September 20, 2018, organized by Indian Association for the Cultivation of Science (IACS), Kolkata.
11. Delivered an **oral talk** at the **National Conference on Frontiers in Chemical Sciences (FICS)-2018**, during December 06-08, 2018, organized by the Department of Chemistry, Indian Institute of Technology Guwahati.
12. Presented **poster** in the **5<sup>th</sup> National Workshop on MEMS/NEMS and Theranostic Devices** held on February 21-23, 2019, organized by Centre of Excellence in Nanoelectronics and Theranostic Devices under the aegis of Centre for Nanotechnology, Indian Institute of Technology Guwahati.
13. Presented **poster** in the **Research Conclave** organized by the Indian Institute of Technology Guwahati from 14-17th March 2019.

14. Presented **poster** at the **14<sup>th</sup> International Symposium on Functional  $\pi$ -Electron Systems (F $\pi$ 14)** held at Humboldt University in Berlin, Germany, from 2<sup>nd</sup> to 7<sup>th</sup> June 2019.
15. Presented **poster** in the **Precision Imaging of Cancer and Therapy (PICT) 4<sup>th</sup> Annual Retreat** held at UCSF Comprehensive Cancer Center, 1450 3rd St, HD-160, San Francisco, CA, USA on 26<sup>th</sup> February 2020.
16. Delivered a **power pitch** at the **17<sup>th</sup> Annual Imaging Research Symposium** held virtually at the Department of Radiology, UCSF, San Francisco, CA, USA, on 14<sup>th</sup> October 2020.
17. Delivered a **power pitch** in the **Precision Imaging of Cancer and Therapy (PICT) 5<sup>th</sup> Annual Retreat** held virtually at UCSF San Francisco, CA, USA, on 25<sup>th</sup> February 2021.
18. Presented **poster** at the **World Molecular Imaging Congress (WMIC) conference** held virtually on 5-8 October 2021.
19. Delivered a **power pitch** in the **18<sup>th</sup> Annual Imaging Research Symposium** held virtually at the Department of Radiology, UCSF, San Francisco, CA, USA, on 3<sup>rd</sup> November 2021.
20. Delivered a **power pitch** at the **UCSF Radiology Imaging Research Symposium** held at Asilomar Conference Ground, Pacific Grove, CA, USA, on 1-3 May 2022.
21. Presented a **poster** at the **UCSF Radiology Imaging Research Symposium** held at Asilomar Conference Ground, Pacific Grove, CA, USA, on 1-3 May 2022.
22. Presented **poster** at the **World Molecular Imaging Congress (WMIC) conference** held in Miami, Florida, USA on September 28-October 1, 2022.
23. Delivered a **talk** at the **UCSF Radiology Imaging Research Symposium** held at Asilomar Conference Ground, Pacific Grove, CA, USA, on 1-3 May 2022.
24. Attended **Pharmacon-2023** at organized by NIPER Hyderabad on 14-16<sup>th</sup> September, 2023.
25. Deliver an **Invited Talk** at the **Recent Advancement in Chemical Sciences: A Sustainable Approach (RACSSA-2024)** held at GIET University, Odisha, on 20-21<sup>st</sup> July, 2024.
26. **Organized** National Conference on “**Next Generation Therapeutics and Delivery Systems (NGT-DS)**”, 24<sup>th</sup> to 26<sup>th</sup> October 2024, Department of Pharmaceutics & Department of Biotechnology National Institute of Pharmaceutical Education and Research (NIPER) – Raebareli
27. Delivered a **talk** at the “Hands-on Training Program on **Design and Charecterization of Nanomaterials**” organized on June 30 to July 4<sup>th</sup>, 2025 by NIPER Raebareli and its Centre of Excellence on Novel Drug Delivery System (CoE-NDDS).
28. Delivered a Guest Lecture on “**Polymer and Antibody Drug Conjugates for Prostate Cancer Theranostics**” at Shreeram College Rampur, Odisha on 22 October, 2025.
29. Nominated (by Department of Science and Technology, INDIA) to participate in The Emerging Science, Technology, and Innovation Conclave (ESTIC), 2025 organised on 3-5 November, 2025 at Bharat Mandapam, New Delhi.
30. Nominated to participate in The National One Health Conclave organised on 20-21 November, 2025 at Bharat Mandapam, New Delhi.

### **AWARDS AND ACHIEVEMENTS**

1. Secured 2<sup>nd</sup> Position in Sambalpur University in Chemistry Hons. (2012)
2. Received Post-Graduate Merit Scholarship for **University Undergraduate Rank Holders** by University Grand Commission in 2012
3. Received scholarship from Institute of Mathematics & Application (IMA), ODISHA, in 2013
4. Qualified Graduate Aptitude Test in Engineering (GATE) in 2014
5. Qualified CSIR NET for the award of Junior Research Fellowship (JRF) and Eligibility for Lectureship (LS) in 2014
6. Received BEST POSTER Presentation award in the 20<sup>th</sup> CRSI National Symposiums in Chemistry (CRSI-NSC)-2017, February 02-05, 2017, organized by Gauhati University, Guwahati.

7. Received BEST POSTER Presentation award in the Newton Bhabha Researcher Links Workshop held during December 14-16, 2017, organized by IISER Kolkata.
8. Received BEST ORAL Presentation award at the National Conference on Frontiers in Chemical Sciences (FICS)-2018, during December 06-08, 2018, organized by the Department of Chemistry, Indian Institute of Technology Guwahati.
9. Received BEST POSTER Presentation award in the 5<sup>th</sup> National Workshop on MEMS/NEMS and Theranostic Devices held on February 21-23, 2019, organized by the Centre of Excellence in Nanoelectronics and Theranostic Devices under the aegis of Centre for Nanotechnology, Indian Institute of Technology Guwahati.
10. Received Travel Grant from the Science and Engineering Research Board (SERB), Govt of India, for presenting a paper at the 14<sup>th</sup> International Symposium on Functional  $\pi$ -Electron Systems (F $\pi$ 14) held at Humboldt University in Berlin, Germany, from 2<sup>nd</sup> to 7<sup>th</sup> June 2019.
11. Received the DST INSPIRE Faculty Fellowship and Research Grant from the Department of Science and Technology (DST) in 2023.
12. Nominated by Department of Science and Technology, INDIA) to participate in The Emerging Science, Technology, and Innovation Conclave (ESTIC), 2025 organised on 3-5 November, 2025 at Bharat Mandapam, New Delhi.

**Lucknow**  
**Dt: 30/04/2026**

**Niranjan Meher**